

□if a English version is needed, please let me know□

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☐☐ ☐☐☐ email: gulifan@hotmail.com

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# ##### Turing Test #####

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**Nature**

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**1)**  AlphaGo Zero  superhuman

**2) natural language process (NLP)** 自然语言处理  
Chinese room argument 中文屋论证

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BRAIN Initiative

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☐ Nature

Nature

AlphaGo Zero □ Nature □□□ superhuman □□□□□□□□ [1]□AlphaGo □□□□□□□□□□□□  
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game Nature Quantum Supremacy [2]

Shor's algorithm  
Quantum Supremacy

Sycamore processor Shor's algorithm  
 Sycamore processor NISQ [noisy  
 intermediate-scale quantum]

noisy NISQ noisy NISQ Quantum Supremacy Quantum Supremacy John Preskill [3]

Quantum Supremacy Quantum Supremacy Nature

Quantum Supremacy ☐ optimization ☐ machine learning ☐  
☐ NISQ ☐ noisy ☐ Sycamore processor ☐  
☐

noisy

0000

smart phone

niche market IT

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[1] Mastering the game of Go without human knowledge, published in Nature, on 18 October 2017: <https://www.nature.com/articles/nature24270>.

[2] Quantum supremacy using a programmable superconducting processor, published in Nature, on 23 October, 2019:  
<https://www.nature.com/articles/s41586-019-1666-5>

[3] <https://www.quantamagazine.org/john-preskill-explains-quantum-supremacy-20191002/>.